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**UNITED STATES DEPARTMENT OF COMMERCE  
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**May 19, 2004**

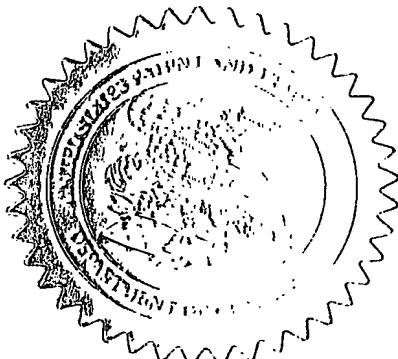
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OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT  
APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A  
FILING DATE.**

**APPLICATION NUMBER: 60/495,656**

**FILING DATE: August 15, 2003**

**RELATED PCT APPLICATION NUMBER: PCT/US04/06357**

**By Authority of the  
COMMISSIONER OF PATENTS AND TRADEMARKS**



**H. L. JACKSON**  
Certifying Officer

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PATENT APPLICATION SERIAL NO. \_\_\_\_\_

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE  
FEE RECORD SHEET

08/19/2003 SDEN0031 00000025 070832 50495656  
01 FC:1005 160.00 DA

PTO-1556  
(5/87)

SU/ST/80

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PTO/SB/16 (02-01)

Approved for use through 10/31/2002, OMB 0651-0032  
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE**PROVISIONAL APPLICATION FOR PATENT COVER SHEET**

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

Express Mail Label No. EL 99507924US

**INVENTOR(S)**

Given Name (first and middle [if any])  Carl Lynn Howard	Family Name or Surname  Christensen Arbuckle	Residence (City and either State or Foreign Country)  South Jordan, Utah USA Bountiful, Utah USA
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 Additional inventors are being named on the next separately numbered sheets attached hereto**TITLE OF THE INVENTION (280 characters max)****SELECTED FUNCTIONALITY IN A BROADCAST ROUTER****CORRESPONDENCE ADDRESS**

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 Customer Number

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Individual Name

JOSEPH S. TRIPOLI, THOMSON MULTIMEDIA LICENSING INC.

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State

NJ

ZIP

08543-5312

Country

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609-734-6805

Fax 609-734-6888

**ENCLOSED APPLICATION PARTS (check all that apply)** Specification Number of Pages

2

 CD(s), Number

\_\_\_\_\_

 Drawing(s) Number of Sheets

\_\_\_\_\_

 Other (specify)

\_\_\_\_\_

 Application Data Sheet. See 37 CFR 1.76**METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT (check one)** Applicant claims small entity status. See 37 CFR 1.27. A check or money order is enclosed to cover the filing feesFILING FEE  
AMOUNT (\$) The Commissioner is hereby authorized to charge filing  
fees or credit any overpayment to Deposit Account Number:

07-0832

160

 Payment by credit card. Form PTO-2038 is attached.

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

 No. Yes, the name of the U.S. Government agency and the Government contract number are: \_\_\_\_\_.

Respectfully submitted,

SIGNATURE

*Francis A. Davenport*

Date

August 15, 2003

TYPED or PRINTED NAME

FRANCIS A. DAVENPORT

REGISTRATION NO.  
(If appropriate)

36,316

TELEPHONE 609 734-6805

Docket Number:

PU 030244

**USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT**

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C., 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

17613 U.S. PRO  
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08/15/03

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# FEE TRANSMITTAL for FY 2003

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 160

Complete If Known	
Application Number	N/A
Filing Date	HEREWITH
First Named Inventor	Carl Christensen, Lynn Howard Arbuckle
Examiner Name	N/A
Group / Art Unit	N/A
Attorney Docket No.	PU 030244

METHOD OF PAYMENT (check one)				FEE CALCULATION (continued)																																																																																																																																																																																													
<p>1. <input type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:</p> <p>Deposit Account Number: 07-0832</p> <p>Deposit Account Name: THOMSON multimedia Licensing Inc.</p> <p><input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17</p> <p><input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27</p>				<p>3. ADDITIONAL FEES</p> <table border="1"> <thead> <tr> <th>Large Entity Fee Code (\$)</th> <th>Fee (\$)</th> <th>Small Entity Fee Code (\$)</th> <th>Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>400</td><td>216</td><td>200</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>920</td><td>217</td><td>460</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,440</td><td>218</td><td>720</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>1,960</td><td>228</td><td>980</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>320</td><td>219</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>320</td><td>220</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>280</td><td>221</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive – unavoidable</td><td></td></tr> <tr><td>141</td><td>1,280</td><td>241</td><td>640</td><td>Petition to revive – unintentional</td><td></td></tr> <tr><td>142</td><td>1,280</td><td>242</td><td>640</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>460</td><td>243</td><td>230</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>620</td><td>244</td><td>310</td><td>Plant Issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Processing fee under 37 CFR 1.17 (q)</td><td></td></tr> <tr><td>126</td><td>180</td><td>128</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>148</td><td>740</td><td>246</td><td>370</td><td>Filing a submission after final rejection (37 CFR § 1.128(a))</td><td></td></tr> <tr><td>149</td><td>740</td><td>249</td><td>370</td><td>For each additional invention to be examined (37 CFR § 1.129(b))</td><td></td></tr> <tr><td>179</td><td>740</td><td>279</td><td>370</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>169</td><td>900</td><td>169</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> <tr> <td colspan="4">Other fee (specify) _____</td> <td colspan="2">SUBTOTAL (3) (\$ 0)</td> </tr> <tr> <td colspan="4">*Reduced by Basic Filing Fee Paid</td> <td colspan="2">SUBTOTAL (3) (\$ 0)</td> </tr> </tbody> </table>				Large Entity Fee Code (\$)	Fee (\$)	Small Entity Fee Code (\$)	Fee (\$)	Fee Description	Fee Paid	105	130	205	65	Surcharge - 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SUBMITTED BY						Complete (if applicable)	
Name (Print/Type)	Francis A. Davenport	Registration No. Attorney/Agent	38,316	Telephone	609-734-6805		
Signature	<i>Francis A. Davenport</i>			Date	09/15/03		

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The PTO did not receive the following listed item(s). Check *\$ 160*

SELECTED FUNCTIONALITY IN A BROADCAST ROUTER

Generally, a more expensive router is expected to have greater functionality than a less expensive router. Oftentimes, this results in different router models have different hardware configurations, thereby adding to both manufacturing and maintenance costs. The invention allows different router models to have common hardware arrangements but to provide the user with differing configuration or levels of operational sophistication provided by information easily changeable by means of remote control of PROM content, or module and or circuit board replacement.

The circuit used for configuring multiple FPGA's in the Bach Router is used to provide a selected level of functionality to the Router. On power-up, or when a board is inserted, a request for configuration is generated. The circuit recognizes the request and completes the configuration using the configuration information maintained in a configuration repository. The level of functionality of the broadcast router is controlled by the circuit. For example, to upgrade a router from a first level of functionality in which the router is capable of performing a first set of functions to a second level of functionality in which the router is capable of performing a second set of functions, the circuit used to configure the router is removed and replaced by a second circuit having different configuration information maintained in it's configuration repository. When the router issues a subsequent request for configuration, the information contained in the second circuit will be used to configure the router. In this manner, the broadcast router is configured at the second level of functionality which differs from the first level of functionality. Thus the advantageous combination of an FPGA with various levels of processing functionality or sophistication, together with a memory containing corresponding functionality configurations, allows the manufacturer to assemble standardized products with functionality determined by the memory .

Others have used on-board storage to configure a device, they have not supported on-demand functionality when using on-board storage. The programmable devices residing within a broadcast router component are initially configured using a shared configuration information repository. For example, the configuration of all of the output boards of a broadcast router is performed using the configuration information stored in a shared configuration information repository residing on a first removable configuration control board inserted into the broadcast router. The programmable devices issue requests for configuration which result in

the transfer of configuration information from the shared configuration information repository to the requesting programmable device. Upon configuration thereof, the programmable devices have a first level of functionality. In other words, the configuration information is used to program the devices to perform a first set of functions. The first configuration control board is removed and replaced with a second configuration control board. Like the first configuration control board, the second configuration control board has a shared configuration information repository in which configuration information for the programmable devices is maintained. The information maintained in the shared configuration information repository of the second configuration control board differs from that maintained in the shared configuration information repository of the first configuration control board. When the programmable devices are subsequently configured, for example, during a subsequent power-up of the broadcast router, the configuration information maintained in the shared configuration repository of the second configuration control board provides the programmable devices of the broadcast router with a second level of functionality, typically, a level of functionality greater than the broadcast router's initial level of functionality. In this manner, the devices of the broadcast router have been programmed to perform a second set of functions distinct from the first set of functions.